CLAIMS:

1. A release coating composition for polymer films, which films are for use in high temperature and/or high humidity applications, which composition comprises a solution of at least one hydroxypropyl methylcellulose having hydroxypropyl molar substitution of from 0 to about 0.82.
2. A release coating composition as claimed in claim 1, wherein the solution comprises from about 0.2% to about 40% by weight of low viscosity hydroxypropyl methylcellulose having hydroxypropyl molar substitution of from 0 to about 0.82 in water, wherein low viscosity means the viscosity of a 2% by weight of a solution of hydroxypropyl methylcellulose in water at room temperature (20°C) is up to 100 centipoise.
3. A release coating composition as claimed in claim 1, wherein the solution comprises up to about 3% by weight of high viscosity hydroxypropyl methylcellulose having hydroxypropyl molar substitution of from 0 to about 0.82 in water, wherein high viscosity means the viscosity of a 2% by weight of a solution of hydroxypropyl methylcellulose in water at room temperature (20°C) is from 100 to 100,000 centipoise.
4. A release coating composition as claimed in claim 1, wherein the solution comprises from about 0.2% to about 40.0% by weight hydroxypropyl methylcellulose in water.
5. A release coating composition as claimed in claim 1, wherein the solution comprises from about 0.2 to about 15% by weight of hydroxypropyl methylcellulose in water.
6. A release coating composition as claimed in claim 1, wherein the solution comprises a mixture of non-aqueous solvent and water and the ratio of parts of solvent to hydroxypropyl methylcellulose ranges from about 2 to about 8:1.
7. A release coating composition as claimed in claim 1, wherein the solution comprises from 0 to about 50% by weight of alcohol, from about 0.2% to about 6.0% by weight of hydroxypropyl methylcellulose, and the remainder up to 100% by weight is water.
8. A release coating composition as claimed in claim 7, wherein from about 1% to about 35% by weight of alcohol is present.
9. A release coating composition as claimed in claim 1, wherein a particulate solid is additionally present in the solution.
10. A release coating composition as claimed in claim 9, wherein the particulate solid is silica.
11. A release coating composition as claimed in claim 8, wherein the particulate solid is talc.

12. A release coating composition as claimed in claim 6, wherein a particulate solid is additionally present in the solution.
13. A release coating composition as claimed in claim 12, wherein the particulate solid is silica.
14. A release coating composition as claimed in claim 12, wherein the particulate solid is talc.
15. A release coating composition as claimed in claim 12, wherein the ratio of particulate solid to hydroxypropyl methylcellulose is in the range of from about 0.01 to about 1.5.
16. A release coating composition as claimed in claim 15, wherein the solution comprises from 0 to about 50% by weight of organic solvent, from about 0.2% to about 15% by weight of hydroxypropyl methylcellulose, with the particulate solid present in the appropriate ratio, and the remainder up to 100% by weight is water.
17. A release coating composition as claimed in claim 9, wherein the ratio of particulate solid to hydroxypropyl methylcellulose is in the range of from about 0.01 to about 1.5.
18. A release coating composition as claimed in claim 1, wherein the polymer film is selected from the group comprising polyolefins, polyesters, nylons and combinations thereof.
19. A release coating composition as claimed in claim 18, wherein the nylons are selected from Nylon 66 and Nylon 6 films.
20. A release coating composition as claimed in claim 18, wherein the polymer film is monoaxially or biaxially oriented.
21. A process for coating a surface of a polymer film with a release coating composition to provide a release film for use in high temperature and/or high humidity conditions, which comprises coating at least one surface of the polymer film with a solution of a hydroxypropyl methyl cellulose having hydroxypropyl molar substitution of from 0 to about 0.82 to provide a coating weight of at least about 0.004lb/ream per side and drying the coated film to set the coating.
22. A process as claimed in claim 21, wherein the film is coated on both sides in separate or single passes to achieve the desired coating weight.
23. A release polymer film coated on at least one surface with hydroxypropyl methylcellulose having hydroxypropyl molar substitution of from 0 to about 0.82.
24. A release polymer film as claimed in claim 23, wherein the coating weight is at least about 0.004 lb/ream per side.
25. A release polymer film as claimed in claim 23, wherein the coating weight is at least about 0.2 lb/ream per side.

26. A release polymer film as claimed in claim 23, wherein the film is coated with a mixture of the hydroxypropyl molar substitution of from 0 to about 0.82 and a particulate solid.
27. A release polymer film as claimed in claim 26, wherein the particulate solid is silica.
28. A release polymer film as claimed in claim 26, wherein the particulate solid is talc.
29. A process for curing rubber which comprises forming a sheet rubber layer in a calendar, laying layers of a release substrate as claimed in claim 23 between layers of the sheet rubber, tightly overwrapping the stack of layers with a release film or cloth, before subjecting the stack of layers to elevated temperature in a dry or steam oven wherein the sheet rubber is cured and subsequently unwrapping the stacked, cured sheets.
30. A process for curing rubber which comprises forming a sheet rubber layer in a calendar, laying layers of a release substrate as claimed in claim 26 between layers of the sheet rubber, tightly overwrapping the stack of layers with a release film or cloth, before subjecting the stack of layers to elevated temperature in a dry or steam oven wherein the sheet rubber is cured and subsequently unwrapping the stacked, cured sheets.
31. A process for producing sheet molding composites which comprises:
    (a) casting a layer of heat-curable thermosetting resin, in fluid form, onto a continuously advancing polymeric release film;
    (b) introducing reinforcing material onto the advancing fluid layer;
    (c) laying a polymeric film on the top surface of said reinforced fluid layer thereby forming a sandwich composite;
    (d) advancing said sandwich composite through a series of kneading and compaction rolls; and
    (e) winding the sandwiched composite into a roll for partial curing;
    the improvement comprising using a release film as claimed in claim 23.
32. A process for producing sheet molding composites which comprises:
    (a) casting a layer of heat-curable thermosetting resin, in fluid form, onto a continuously advancing polymeric release film;
    (b) introducing reinforcing material onto the advancing fluid layer;
    (c) laying a polymeric film on the top surface of said reinforced fluid layer thereby forming a sandwich composite;
    (d) advancing said sandwich composite through a series of kneading and compaction rolls; and
    (e) winding the sandwiched composite into a roll for partial curing;
    the improvement comprising using a release film as claimed in claim 26.
33. A process for making thick molding composites, comprising

(a) introducing reinforcing material into a heat-curable thermosetting resin, in fluid form and mixing same until the material is mixed and wetted;

(b) casting a layer of said mixture onto a continuously advancing polymeric film;

(c) laying a polymeric film on the top surface of said reinforcing material-resin layer to form a sandwich composite;

(d) advancing the sandwich composite through at least one compaction roll;

(e) cutting the continuous lengths of the sandwich composite into lengths for partial curing;

the improvement comprising using a release film as claimed in claim 23.

34. A process for making thick molding composites, comprising

(a) introducing reinforcing material into a heat-curable thermosetting resin, in fluid form and mixing same until the material is mixed and wetted;

(b) casting a layer of said mixture onto a continuously advancing polymeric film;

(c) laying a polymeric film on the top surface of said reinforcing material-resin layer to form a sandwich composite;

(d) advancing the sandwich composite through at least one compaction roll;

(e) cutting the continuous lengths of the sandwich composite into lengths for partial curing;

the improvement comprising using a release film as claimed in claim 26.